

Quanterra Incorporated
13715 Ruder Trail North
Earth City, Missouri 63045

314 298-8566 Telephone
314 298-8757 Fax

CASE NARRATIVE
Revised 3/8/00



Environmental
Services

60.12001

Bechtel Hanford Incorporated
3350 George Washington Way
Richland, Washington 99352

February 9, 2000

Attention: Joan Kessner

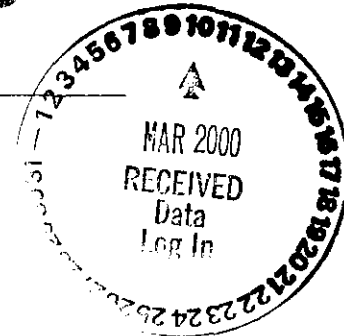
RECEIVED
APR 11 2000

EDMC

Original received
2/11/2000

RCyes
3/16/2000

Quote Number	:	33811
SDG	:	W03005
Number of Samples	:	<u>eighteen (18)</u>
Sample Matrix	:	Solid
Data Deliverable	:	Summary
Date SDG Closed	:	January 12, 2000



II. Introduction

Between January 5, 2000 and January 6, 2000, eighteen (18) "solid" samples were received by Quanterra, Richland and transferred to Quanterra, St. Louis for chemical analysis. The samples were received at the St. Louis lab within the temperature criteria. See the attached Sample Summary for a listing of Client Ids and their associated Lab numbers.

III. Analytical Results/ Methodology

The analytical results for this report are presented by analytical test. Each set of data includes sample identification information, analytical results and the appropriate detection limits.

Analyses requested: ICP Metals - 6010 Super Trace - Lead
Mercury - 7471 - CV

Deviation from Request: None

IV. Definitions

The following codes are used to denote laboratory quality control samples and can be found in the data summary section of this report:

QCBLK- Quality Control Blank, Method Blank
QCLCS- Quality Control Laboratory Control Sample, Blank Spike

000002
DFA

Bechtel Hanford Incorporated
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MS- Matrix Spike.
MSD- Matrix Spike Duplicate.

V. Comments

General: The term "Detection Limit" used in the analytical data reports refers to either the lab's standard reporting limits or contractually required reporting limits, whichever is applicable.

Please refer to the attached cross-reference table for the standard preparation methods used at Quanterra, St. Louis.

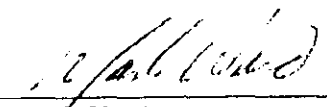
Metals: A Laboratory Control Sample, Method Blank, Matrix Spike and Matrix Spike Duplicate were analyzed with each preparation batch per the protocol for this analysis.

The initial analysis of the Mercury samples had LCS recoveries outside QC limits at 159% and 165%. The samples were re-digested and re-analyzed. The LCS recoveries met criteria in the re-analysis. The re-analysis data is reported in the package.

The Mercury prep and analysis was done outside of holding time. The prep and analysis was done on 2/4/00. Holding times were expired from 1 to 4 days.

I certify that this Summary is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the following signature.

Reviewed and approved:

 2/6/00

Marti Ward
St. Louis Project Manager

000003
DSA

Quanterra **Nonconformance Memo**

Clouseau

NCM #: F00041	Classification: Deficiency
NCM Initiated By: Ed Kao	Status: PMREVIEW
Date Opened: 02/01/00	Production Area: Metals
Date Closed: N/A	Tests: 7471A
	Lot #'s (Sample #'s): F0A060175 <i>W03005</i> (1,10,11,2,3,4,5,6,7,8,9); F0A070135 (1,2,3,4,5,6,7); F0A110152 (6)
	QC Batch: 0026218
Nonconformance: QC data exceeded criteria	
Subcategory: Other (explanation required)	

Problem Description / Root Cause

Name	Date	Description
Ed Kao	02/01/00	The LCS soil were outside of acceptance criteria (159% and 165%). However, the MS/MSDs were 116%/117% and 125%/123%. In addition, upon further investigation we tested the same Lot# but different bottle (there were 4 bottles of LCS soil with the same Lot#) and the LCS soil passed. In conclusion, we attributed contamination to that specific bottle.

Corrective Action

Name	Date	Corrective Action
Ed Kao	02/01/00	The bottle that tested fine will be used and all other bottles are to be discontinued effectively.

Client Notification Summary

Client	Project Manager	Date Notified	Response Date	How Notified
BECHTEL HANFORD, INC.	Ward, Marti	02/01/00	02/01/00	in writing
	<u>Response</u>	<u>Response Details</u>		
	Process "as-is"			

Approval History

Name	Date Approved:	Position
Ed Kao	02/01/00	Group Leader
Ward, Marti	02/01/00	Project Manager

Client required re-analysis

000004

SAMPLE SUMMARY

FOA070135

WO #	SAMPLE#	CLIENT	SAMPLE ID	DATE	TIME
D76G1	001	B0XB67		01/06/00	08:58
D76GJ	002	B0XB68		01/06/00	09:11
D76GL	003	B0XB69		01/06/00	09:23
D76GP	004	B0XB70		01/06/00	09:36
D76GQ	005	B0XB71		01/06/00	09:36
D76GR	006	B0XB72		01/06/00	09:43
D76GT	007	B0XB73		01/06/00	10:12

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

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SAMPLE SUMMARY

F0A060175

WO #	SAMPLE#	CLIENT	SAMPLE ID	DATE	TIME
D7557	001	B0XB60		01/05/00	08:41
D755C	002	B0XB61		01/05/00	08:48
D755D	003	B0XB62		01/05/00	09:00
D755H	004	B0XB63		01/05/00	09:11
D755L	005	B0XB64		01/05/00	09:22
D755W	006	B0XB65		01/05/00	09:37
D7560	007	B0XB66		01/05/00	09:47
D7563	008	B0XBH5		01/03/00	12:30
D7565	009	B0XBH6		01/03/00	12:41
D7567	010	B0XBH7		01/03/00	12:53
D756A	011	B0XBH8		01/03/00	12:53

NOTE (S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

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METHODS SUMMARY

FOA070135

<u>PARAMETER</u>	<u>ANALYTICAL METHOD</u>	<u>PREPARATION METHOD</u>
Mercury in Solid Waste (Manual Cold-Vapor)	SW846 7471A	SW846 7471A
Trace Inductively Coupled Plasma (ICP) Metals	SW846 6010B	SW846 3050B

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

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QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/07/00
Time: 15:26:35
User Id.: SEITHELK

CLIENT: 127642 BECHTEL HANFORD, INC.
PROJECT MANAGER: MARTI WARD
PROJECT #: D&D
REPORT TO: Bechtel Hanford, Inc.
P.O. NUMBER: MRC-SBB-A-19981
SITE: B00-013
AMOUNT REC'D: 60G
STORAGE LOC: T7F
LOT COMMENTS: Hanford Summary and FEAD EDD required
MATRIX: SOLID
SAMPLE ID: B0XB67
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33811
LAB ID: F-0A070135-001
WORK ORDER: D76G1
RECEIVING DATE: 1/06/00
SAMPLING DATE: 1/06/00
ANALYTICAL DUE DATE: 1/24/00N
REPORT DUE DATE: 1/27/00
PRIORITY: 18
SAMPLING TIME: 8:58
RECEIVING TIME: 12:00
SDG# : W03005

Beginning Depth: .00 Ending Depth: .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace) METALS, TOTAL - Soils MT6010_S PB (A-46-QM-01) D76G1 Protocol: A QC Program: STANDARD TEST SET	06	1/07/00	0/00/00	7/04/00
Mercury (7471A, Cold Vapor) - Solids METALS, TOTAL (Method Exclusive) - Solids M7471_S HG (A-70-09-01) D76G1 Protocol: A QC Program: STANDARD TEST SET	06	1/07/00	0/00/00	2/03/00

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Page 1

QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/07/00
Time: 15:26:35
User Id.: SEITHELK

CLIENT: 127642 BECHTEL HANFORD, INC.
PROJECT MANAGER: MARTI WARD
PROJECT #: D&D
REPORT TO: Bechtel Hanford, Inc.
P.O. NUMBER: MRC-SBB-A-19981
SITE: B00-013
AMOUNT REC'D: 60G
STORAGE LOC: T7F
LOT COMMENTS: Hanford Summary and FEAD EDD required
MATRIX: SOLID
SAMPLE ID: B0XB67
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33811
LAB ID: F-0A070135-001-D
WORK ORDER: D76G1 MSD
RECEIVING DATE: 1/06/00
SAMPLING DATE: 1/06/00
ANALYTICAL DUE DATE: 1/24/00N
REPORT DUE DATE: 1/27/00
PRIORITY: 18
SAMPLING TIME: 8:58
RECEIVING TIME: 12:00
SDG# : W03005

Beginning Depth: .00 Ending Depth: .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace) 06		1/07/00	0/00/00	7/04/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01) D76G1	Protocol: A	QC Program:	STANDARD TEST SET	
Mercury (7471A, Cold Vapor) - Solids 06		1/07/00	0/00/00	2/03/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-O9-01) D76G1	Protocol: A	QC Program:	STANDARD TEST SET	

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QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/07/00
Time: 15:26:35
User Id.: SEITHELK

CLIENT: 127642 BECHTEL HANFORD, INC.
PROJECT MANAGER: MARTI WARD
PROJECT #: D&D
REPORT TO: Bechtel Hanford, Inc.
P.O. NUMBER: MRC-SBB-A-19981
SITE: B00-013
AMOUNT REC'D: 60G
STORAGE LOC: T7F
LOT COMMENTS: Hanford Summary and FEAD EDD required
MATRIX: SOLID
SAMPLE ID: B0XB67
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33811
LAB ID: F-0A070135-001-S
WORK ORDER: D76G1 MS
RECEIVING DATE: 1/06/00
SAMPLING DATE: 1/06/00
ANALYTICAL DUE DATE: 1/24/00N
REPORT DUE DATE: 1/27/00
PRIORITY: 18
SAMPLING TIME: 8:58
RECEIVING TIME: 12:00
SDG# : W03005

Beginning Depth: .00 Ending Depth: .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace) 06		1/07/00	0/00/00	7/04/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01) D76G1	Protocol: A	QC Program: STANDARD TEST SET		
Mercury (7471A, Cold Vapor) - Solids 06		1/07/00	0/00/00	2/03/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-O9-01) D76G1	Protocol: A	QC Program: STANDARD TEST SET		

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QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/07/00
Time: 15:26:35
User Id.: SEITHELK

CLIENT: 127642 BECHTEL HANFORD, INC.

PROJECT MANAGER: MARTI WARD

PROJECT #: D&D

REPORT TO: Bechtel Hanford, Inc.

P.O. NUMBER: MRC-SBB-A-19981

SITE: B00-013

AMOUNT REC'D: 60G

STORAGE LOC: T7F

LOT COMMENTS: Hanford Summary and FEAD EDD required

MATRIX: SOLID

SAMPLE ID: B0XB68

QC PACKAGE: Special Report - see checklist

SAMPLE COMMENTS:

QUOTE/SAR #: 33811

LAB ID: F-0A070135-002

WORK ORDER: D76GJ

RECEIVING DATE: 1/06/00

SAMPLING DATE: 1/06/00

ANALYTICAL DUE DATE: 1/24/00N

REPORT DUE DATE: 1/27/00

PRIORITY: 18

SAMPLING TIME: 9:11

RECEIVING TIME: 12:00

SDG# : W03005

Beginning Depth: .00 Ending Depth: .00

***** ANALYSIS *****

	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace) 06		1/07/00	0/00/00	7/04/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01) D76GJ	Protocol: A	QC Program: STANDARD TEST SET		
Mercury (7471A, Cold Vapor) - Solids 06		1/07/00	0/00/00	2/03/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-O9-01) D76GJ	Protocol: A	QC Program: STANDARD TEST SET		

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QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/07/00
Time: 15:26:35
User Id.: SEITHELK

CLIENT: 127642 BECHTEL HANFORD, INC.
PROJECT MANAGER: MARTI WARD
PROJECT #: D&D
REPORT TO: Bechtel Hanford, Inc.
P.O. NUMBER: MRC-SBB-A-19981
SITE: B00-013
AMOUNT REC'D: 60G
STORAGE LOC: T7F
LOT COMMENTS: Hanford Summary and FEAD EDD required
MATRIX: SOLID
SAMPLE ID: BOXB69
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33811
LAB ID: F-0A070135-003
WORK ORDER: D76GL
RECEIVING DATE: 1/06/00
SAMPLING DATE: 1/06/00
ANALYTICAL DUE DATE: 1/24/00N
REPORT DUE DATE: 1/27/00
PRIORITY: 18
SAMPLING TIME: 9:23
RECEIVING TIME: 12:00
SDG# : W03005

Beginning Depth: .00 Ending Depth: .00

	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
***** ANALYSIS *****				
Inductively Coupled Plasma (6010B Trace) 06		1/07/00	0/00/00	7/04/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01) D76GL	Protocol: A	QC Program: STANDARD TEST SET		
Mercury (7471A, Cold Vapor) - Solids 06		1/07/00	0/00/00	2/03/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-09-01) D76GL	Protocol: A	QC Program: STANDARD TEST SET		

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QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/07/00
Time: 15:26:35
User Id.: SEITHELK

CLIENT: 127642 BECHTEL HANFORD, INC.
PROJECT MANAGER: MARTI WARD
PROJECT #: D&D
REPORT TO: Bechtel Hanford, Inc.
P.O. NUMBER: MRC-SBB-A-19981
SITE: B00-013
AMOUNT REC'D: 60G
STORAGE LOC: T7F
LOT COMMENTS: Hanford Summary and FEAD EDD required
MATRIX: SOLID
SAMPLE ID: B0XB70
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33811
LAB ID: F-0A070135-004
WORK ORDER: D76GP
RECEIVING DATE: 1/06/00
SAMPLING DATE: 1/06/00
ANALYTICAL DUE DATE: 1/24/00N
REPORT DUE DATE: 1/27/00
PRIORITY: 18
SAMPLING TIME: 9:36
RECEIVING TIME: 12:00
SDG# : W03005

Beginning Depth: .00 Ending Depth: .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace) METALS, TOTAL - Soils MT6010_S PB (A-46-QM-01) D76GP Protocol: A QC Program: STANDARD TEST SET	06	1/07/00	0/00/00	7/04/00
Mercury (7471A, Cold Vapor) - Solids METALS, TOTAL (Method Exclusive) - Solids M7471_S HG (A-70-09-01) D76GP Protocol: A QC Program: STANDARD TEST SET	06	1/07/00	0/00/00	2/03/00

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Page 1

QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/07/00
Time: 15:26:35
User Id.: SEITHELK

CLIENT: 127642 BECHTEL HANFORD, INC.
PROJECT MANAGER: MARTI WARD
PROJECT #: D&D
REPORT TO: Bechtel Hanford, Inc.
P.O. NUMBER: MRC-SBB-A-19981
SITE: B00-013
AMOUNT REC'D: 60G
STORAGE LOC: T7F
LOT COMMENTS: Hanford Summary and FEAD EDD required
MATRIX: SOLID
SAMPLE ID: B0XB71
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33811
LAB ID: F-0A070135-005
WORK ORDER: D76GQ
RECEIVING DATE: 1/06/00
SAMPLING DATE: 1/06/00
ANALYTICAL DUE DATE: 1/24/00N
REPORT DUE DATE: 1/27/00
PRIORITY: 18
SAMPLING TIME: 9:36
RECEIVING TIME: 12:00
SDG# : W03005

Beginning Depth: .00 Ending Depth: .00

***** ANALYSIS *****

	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace) 06		1/07/00	0/00/00	7/04/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01) D76GQ	Protocol: A	QC Program: STANDARD TEST SET		
Mercury (7471A, Cold Vapor) - Solids 06		1/07/00	0/00/00	2/03/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-O9-01) D76GQ	Protocol: A	QC Program: STANDARD TEST SET		

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QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/07/00
Time: 15:26:35
User Id.: SEITHELK

CLIENT: 127642 BECHTEL HANFORD, INC.
PROJECT MANAGER: MARTI WARD
PROJECT #: D&D
REPORT TO: Bechtel Hanford, Inc.
P.O. NUMBER: MRC-SBB-A-19981
SITE: B00-013
AMOUNT REC'D: 60G
STORAGE LOC: T7F
LOT COMMENTS: Hanford Summary and FEAD EDD required
MATRIX: SOLID
SAMPLE ID: B0XB72
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33811
LAB ID: F-0A070135-006
WORK ORDER: D76GR
RECEIVING DATE: 1/06/00
SAMPLING DATE: 1/06/00
ANALYTICAL DUE DATE: 1/24/00N
REPORT DUE DATE: 1/27/00
PRIORITY: 18
SAMPLING TIME: 9:43
RECEIVING TIME: 12:00

SDG# : W03005

Beginning Depth: .00 Ending Depth: .00

***** ANALYSIS *****

	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace) 06		1/07/00	0/00/00	7/04/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01) D76GR	Protocol: A	QC Program:	STANDARD TEST SET	
Mercury (7471A, Cold Vapor) - Solids 06		1/07/00	0/00/00	2/03/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-O9-01) D76GR	Protocol: A	QC Program:	STANDARD TEST SET	

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PSL20300
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QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/07/00
Time: 15:26:35
User Id.: SEITHELK

CLIENT: 127642 BECHTEL HANFORD, INC.
PROJECT MANAGER: MARTI WARD
PROJECT #: D&D
REPORT TO: Bechtel Hanford, Inc.
P.O. NUMBER: MRC-SBB-A-19981
SITE: B00-013
AMOUNT REC'D: 60G
STORAGE LOC: T7F
LOT COMMENTS: Hanford Summary and FEAD EDD required
MATRIX: SOLID
SAMPLE ID: BOXB73
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33811
LAB ID: F-0A070135-007
WORK ORDER: D76GT
RECEIVING DATE: 1/06/00
SAMPLING DATE: 1/06/00
ANALYTICAL DUE DATE: 1/24/00N
REPORT DUE DATE: 1/27/00
PRIORITY: 18
SAMPLING TIME: 10:12
RECEIVING TIME: 12:00
SDG# : W03005

Beginning Depth: .00 Ending Depth: .00

	WRK <u>LOC</u>	REQUEST <u>DATE</u>	EXTRACTION <u>EXP DATE</u>	ANALYSIS <u>EXP DATE</u>
***** ANALYSIS *****				
Inductively Coupled Plasma (6010B Trace) 06		1/07/00	0/00/00	7/04/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01) D76GT	Protocol: A	QC Program: STANDARD TEST SET		
Mercury (7471A, Cold Vapor) - Solids 06		1/07/00	0/00/00	2/03/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-O9-01) D76GT	Protocol: A	QC Program: STANDARD TEST SET		

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U-27058

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				B00-013-110		Page 1 of 1						
Collector Fahlberg	W03005	Company Contact J Adler	Telephone No. 373-4316		Project Coordinator TRENT, SJ	Price Code 9L	Data Turnaround 21 Days							
Project Designation 105-F/DR Phase III Below-grade Areas Sampling and Analy		Sampling Location 105 F Solids Feed		SAF No. B00-013	Air Quality <input type="checkbox"/>									
Ice Chest No. E2L-96-065		Field Logbook No. EL 1424		COA R105F2280C	Method of Shipment Hand Delivered									
Shipped To Quanterra Incorporated		Offsite Property No.			Bill of Lading/Air Bill No.									
POSSIBLE SAMPLE HAZARDS/REMARKS				Preservation	Cool 4C	None	None							
				Type of Container	aG	aG	aG							
				No. of Container(s)	1	1	1							
				Volume	60mL	60mL	120mL							
Special Handling and/or Storage														
SDA W03005 SAMPLE ANALYSIS Due 1-27 JOA060216				7196 CR6: Hexavalent Chromium (L) (Lead); Mercury - 7471 - (CV)	ICP Metals - 6010A (Supertrace) (Lead); Mercury - 7471 - (CV)	See item (1) in Special Instructions.								
Sample No.	Matrix *	Sample Date	Sample Time											
B0XB67	Other Solid	1-6-00	0858	X	X	X	D75L3							
Box B68	OTHER SOLID	1-6-00	0911	X	X	X	D75L4							
Box B69	OTHER SOLID	1-6-00	0923	X	X	X	D75L5							
Box B 70	OTHER SOLID	1-6-00	0936	X	X	X	D75LH							
Box B 71	OTHER SOLID	1-6-00	0936	X	X	X	D75LJ							
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *						
Relinquished By		Date/Time		Received By		Date/Time		(1) Gamma Spectroscopy (Cobalt-60); Gamma Spec - Add-on (Barium-133); Isotopic Plutonium; Strontium-89,90 -- Total Sr; Technetium-99; Americium-241; Nickel-63; Carbon-14 TIED TO RAD SURVEIL Box BFC						
Relinquished By		Date/Time		Received By		Date/Time								
Relinquished By		Date/Time		Received By		Date/Time								
Relinquished By		Date/Time		Received By		Date/Time								
Relinquished By		Date/Time		Received By		Date/Time								
LABORATORY SECTION		Received By		Title		Date/Time								
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time								

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST					B00-013-115		Page <u>1</u> of <u>1</u>		
Collector Fahlberg <u>W03605</u>		Company Contact J Adler		Telephone No. 373-4316		Project Coordinator TRENT, SJ		Price Code 9L		Data Turnaround 21 Days	
Project Designation 105-F/DR Phase III Below-grade Areas Sampling and Analy		Sampling Location 105 F Solids Feed		SAF No. B00-013		Air Quality <input type="checkbox"/>					
Ice Chest No. <u>ERC-96-065</u>		Field Logbook No. EL 1424		COA R105F2280c		Method of Shipment <u>Land Delivery</u>					
Shipped To Quanterra Incorporated		Offsite Property No.				Bill of Lading/Air Bill No.					
POSSIBLE SAMPLE HAZARDS/REMARKS				Preservation		Cool 4C	None	None			
				Type of Container		aG	aG	aG			
				No. of Container(s)		1	1	1			
				Volume		60mL	60mL	120mL			
Special Handling and/or Storage											
SAMPLE ANALYSIS				7196_CR6: Hexavalent Chromium (1)		ICP Metals - 6010A (Supertrace) (Lead); Mercury - 7471 - (CV)		See item (1) in Special Instructions.			
Sample No.	Matrix *	Sample Date	Sample Time								
B0XB72	Other Solid	<u>1-6-00</u>	<u>0949</u>	X	X	X	D7SLL				
<u>B0XB73</u>	<u>Other Solid</u>	<u>1-6-00</u>	<u>1012</u>	X	X	X	D7SLM				
CHAIN OF POSSESSION				SPECIAL INSTRUCTIONS				Matrix *			
Relinquished By <u>R. Fahlberg</u>		Date/Time <u>1-6-00</u>		Received By <u>R. Fahlberg</u>		Date/Time <u>1-6-00</u>		(1) Gamma Spectroscopy (Cobalt-60); Gamma Spec - Add-on (Barium-133); Isotopic Plutonium; Strontium-89,90 - Total Sr; Technetium-99; Americium-241; Nickel-63; Carbon-14 <u>TIED TO RAD SERIAL B0XB76</u>			S=Soil SE=Sediment SO=Solid S=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other
Relinquished By <u>R. Fahlberg</u>		Date/Time <u>1-6-00</u>		Received By <u>R. Fahlberg</u>		Date/Time <u>1-6-00</u>					
Relinquished By <u>R. Fahlberg</u>		Date/Time <u>1-6-00</u>		Received By <u>R. Fahlberg</u>		Date/Time <u>1-6-00</u>					
Relinquished By		Date/Time		Received By		Date/Time					
Relinquished By		Date/Time		Received By		Date/Time					
Relinquished By		Date/Time		Received By		Date/Time					
Relinquished By		Date/Time		Received By		Date/Time					
Relinquished By		Date/Time		Received By		Date/Time					
Relinquished By		Date/Time		Received By		Date/Time					
LABORATORY SECTION		Received By				Title				Date/Time	
FINAL SAMPLE DISPOSITION		Disposal Method				Disposed By				Date/Time	

ERC Radiological Counting Facility Analysis Report

RCF Number RCF6959Sample Date & Time 12/29/99 0952Project ID: 105-F SAF Number: B00-013Date Analyzed 12/30/99 9:08:Sample ID: B0XBf6

Gamma Energy Analysis

Nuclide	Activity (pCi/g)	Error (pCi/g)	MDC (pCi/g)
K-40	< 1.7E+02		1.7E+02
Co-60	< 1.8E+01		1.8E+01
Cs-137	< 1.8E+01		1.8E+01
Eu-152	< 4.7E+01		4.7E+01
Eu-154	< 4.8E+01		4.8E+01
Eu-155	< 8.0E+01		8.0E+01
Th-232D	< 4.7E+01		4.7E+01
U-235	< 1.6E+02		1.6E+02
U-238	< 3.3E+03		3.3E+03
U-238D	9.4E+01	+/- 4.3E+01	4.9E+01
Am-241	< 4.7E+01		4.7E+01

Total GEA (pCi/g)	9.4E+01	+/-	4.3E+01
-------------------	---------	-----	---------

	Activity (pCi/g)	Error (pCi/g)
Gross Alpha**	7.6E-01	+/- 6.0E-01
Gross Beta	1.0E+01	+/- 1.2E+00

Alpha MDC (pCi/g)
4.3E-01
Beta MDC (pCi/g)
5.6E+00

Definitions:

All errors reported at 2 standard deviations.

N/R = no result or analysis not requested. <MDC = Less than detection limit.

All GEA results reported as "<" list the Minimum Detectable Concentration (MDC) value for that radionuclide.

Rounding error may result in the reported total GEA activity differing from the sum of the > MDC GEA values in the second significant digit.

For soils and natural samples, the following applies:

The analysis of U-238 is based on the activity of Pa-234m.

The analysis of Np-237 is based on the activity of Pa-233.

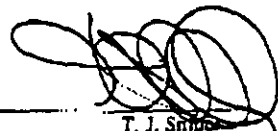
U-238_{da} is the activity of Pb-214 and Bi-214, short lived daughter products of U-238. Equilibrium between parent and daughter products probably does not exist in disturbed materials.Th-232_{da} is the activity of Ac-228, Pb-212, and Tl-208, short lived daughter products of Th-232. Equilibrium between parent and daughter products may not exist in disturbed materials.

Other samples, not containing natural materials, may have inapplicable results for the Th, U, transuranics and daughter products. The results must then be balanced for the gross alpha analysis.

**The gross alpha results are not corrected for mass absorption

No peaks for this radionuclide were visible above background in the spectrum. The result was reported as less than MDC.

Analyst



T. J. Smith

12/30/99

Report To
D. St JohnFax
372-9487

Report Printed: Thursday, December 30, 1999

000019

Figure 1

SAMPLE CHECK-IN LIST

Date/Time Received: 16-00 1200 SG#: W03005
Work Order Number: JOA060216 SAF #: B00014 / B00013
Shipping Container ID: ERC96-005 Chain of Custody #: B00-013-110 + 115

1. Custody Seals on shipping container intact? Yes [☒] No [☐]
2. Custody Seals dated and signed? Yes [☒] No [☐]
3. Chain-of-Custody record present? Yes [☒] No [☐] 40c
4. Cooler temperature _____
5. Vermiculite/packing materials is Wet [☐] Dry [☒]
6. Number of samples in shipping container: 26
7. Sample holding times exceeded? Yes [☐] No [☐]

8. Samples have:
☒ tape ☐ hazard labels
☒ custody seals ☐ appropriate sample labels

9. Samples are:
☒ in good condition ☐ leaking
☐ broken ☐ have air bubbles

10. Where any anomalies identified in sample receipt? Yes [☐] No [☒]
11. Description of anomalies (include sample numbers): _____

Sample Custodian/Laboratory: K. Schumacher Date: 01-06-00
Telephoned To: _____ On: _____ By: _____

000020

Login No.: FOA07013E

Condition Upon Receipt Variance Report
St. Louis Laboratory

W03005

Client: Bechtel Hanford
Project No: _____
Shipper/No: APRBOONE

Date: 1/7/00 Time: 1000
Initiated by: Ruthel
RFA/COC Numbers: B00-013-110,
B00-013-115

Condition/Variance (Check all that apply):

1. <input type="checkbox"/> Sample received broken/leaking.	8. <input type="checkbox"/> Sample ID on container does not match sample ID on paperwork. Explain: _____
2. <input type="checkbox"/> Sample received without proper preservative. <input type="checkbox"/> Cooler temperature not within $4C \pm 2C$ Record temperature: _____ <input type="checkbox"/> pH _____ <input type="checkbox"/> other: _____	9. <input type="checkbox"/> All coolers on airbill not received with shipment.
3. <input type="checkbox"/> Sample received in improper container.	10. <input type="checkbox"/> Other (explain below): _____
4. <input type="checkbox"/> Sample received without proper paperwork. Explain: _____	
5. <input type="checkbox"/> Paperwork received without sample.	
6. <input type="checkbox"/> No sample ID on sample container.	
7. <input type="checkbox"/> Custody tape disturbed/broken/missing.	

☒ No variances were noted during sample receipt. Cooler Temperature Upon Receipt: 2°
Temperature Variance Does Not Affect the Following Analyses: _____

Notes: _____

Corrective Action:

☐ Client's Name: _____ Informed verbally on: _____ By: _____
☐ Client's Name: _____ Informed in writing on: _____ By: _____
☐ Sample(s) processed "as is".
☐ Comments: _____ If released, notify: _____
☐ Sample(s) on hold until: _____

Sample Control Supervisor Review: Ruthel Date: 1/7/00
Project Management Review: Jennifer Smith Date: 1-7-00

SIGNED ORIGINAL MUST BE RETAINED IN THE PROJECT FILE

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Page 1

QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/06/00
Time: 11:25:09
User Id.: SMITHJE

CLIENT: 127642 BECHTEL HANFORD, INC.

PROJECT MANAGER: MARTI WARD

PROJECT #: D&D

REPORT TO: Bechtel Hanford, Inc.

P.O. NUMBER: MRC-SBB-A-19981

SITE: B00-013

AMOUNT REC'D: 60MLG

STORAGE LOC: T8F

LOT COMMENTS: Hanford Summary and FEAD EDD required

MATRIX: SOLID

SAMPLE ID: B0XB60

QC PACKAGE: Special Report - see checklist

SAMPLE COMMENTS:

QUOTE/SAR #: 33811

LAB ID: F-0A060175-001

WORK ORDER: D7557

RECEIVING DATE: 1/05/00

SAMPLING DATE: 1/05/00

ANALYTICAL DUE DATE: 1/24/00N

REPORT DUE DATE: 1/26/00

PRIORITY: 19

SAMPLING TIME: 8:41

RECEIVING TIME: 11:15

SDG# : W03005

Beginning Depth: .00 Ending Depth: .00

***** ANALYSIS *****

	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace) 06		1/06/00	0/00/00	7/03/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01) D7557	Protocol: A	QC Program:	STANDARD TEST SET	
Mercury (7471A, Cold Vapor) - Solids 06		1/06/00	0/00/00	2/02/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-O9-01) D7557	Protocol: A	QC Program:	STANDARD TEST SET	

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Page 1

QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/06/00
Time: 11:25:09
User Id.: SMITHJE

CLIENT: 127642 BECHTEL HANFORD, INC.
PROJECT MANAGER: MARTI WARD
PROJECT #: D&D
REPORT TO: Bechtel Hanford, Inc.
P.O. NUMBER: MRC-SBB-A-19981
SITE: B00-013
AMOUNT REC'D: 60MLG
STORAGE LOC: T8F
LOT COMMENTS: Hanford Summary and FEAD EDD required
MATRIX: SOLID
SAMPLE ID: B0XB60
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33811
LAB ID: F-0A060175-001-D
WORK ORDER: D7557 MSD
RECEIVING DATE: 1/05/00
SAMPLING DATE: 1/05/00
ANALYTICAL DUE DATE: 1/24/00N
REPORT DUE DATE: 1/26/00
PRIORITY: 19
SAMPLING TIME: 8:41
RECEIVING TIME: 11:15
SDG# : W03005

Beginning Depth: .00 Ending Depth: .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace) METALS, TOTAL - Soils MT6010_S PB (A-46-QM-01) D7557 Protocol: A QC Program: STANDARD TEST SET	06	1/06/00	0/00/00	7/03/00
Mercury (7471A, Cold Vapor) - Solids METALS, TOTAL (Method Exclusive) - Solids M7471_S HG (A-70-O9-01) D7557 Protocol: A QC Program: STANDARD TEST SET	06	1/06/00	0/00/00	2/02/00

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PSL20300
Page 1

QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/06/00
Time: 11:25:09
User Id.: SMITHJE

CLIENT: 127642 BECHTEL HANFORD, INC.
PROJECT MANAGER: MARTI WARD
PROJECT #: D&D
REPORT TO: Bechtel Hanford, Inc.
P.O. NUMBER: MRC-SBB-A-19981
SITE: B00-013
AMOUNT REC'D: 60MLG
STORAGE LOC: T8F
LOT COMMENTS: Hanford Summary and FEAD EDD required
MATRIX: SOLID
SAMPLE ID: BOXB60
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33811
LAB ID: F-0A060175-001-S
WORK ORDER: D7557 MS
RECEIVING DATE: 1/05/00
SAMPLING DATE: 1/05/00
ANALYTICAL DUE DATE: 1/24/00N
REPORT DUE DATE: 1/26/00
PRIORITY: 19
SAMPLING TIME: 8:41
RECEIVING TIME: 11:15
SDG# : W03005

Beginning Depth: .00 Ending Depth: .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace) 06		1/06/00	0/00/00	7/03/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01) D7557	Protocol: A	QC Program:	STANDARD TEST SET	
Mercury (7471A, Cold Vapor) - Solids 06		1/06/00	0/00/00	2/02/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-O9-01) D7557	Protocol: A	QC Program:	STANDARD TEST SET	

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Page 1

QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/06/00
Time: 11:25:09
User Id.: SMITHJE

CLIENT: 127642 BECHTEL HANFORD, INC.
PROJECT MANAGER: MARTI WARD
PROJECT #: D&D
REPORT TO: Bechtel Hanford, Inc.
P.O. NUMBER: MRC-SBB-A-19981
SITE: B00-013
AMOUNT REC'D: 60MLG
STORAGE LOC: T8F
LOT COMMENTS: Hanford Summary and FEAD EDD required
MATRIX: SOLID
SAMPLE ID: B0XB61
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33811
LAB ID: F-0A060175-002
WORK ORDER: D755C
RECEIVING DATE: 1/05/00
SAMPLING DATE: 1/05/00
ANALYTICAL DUE DATE: 1/24/00N
REPORT DUE DATE: 1/26/00
PRIORITY: 19
SAMPLING TIME: 8:48
RECEIVING TIME: 11:15
SDG# : W03005

Beginning Depth: .00 Ending Depth: .00

***** ANALYSIS *****

	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace) 06		1/06/00	0/00/00	7/03/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01) D755C	Protocol: A	QC Program: STANDARD TEST SET		
Mercury (7471A, Cold Vapor) - Solids 06		1/06/00	0/00/00	2/02/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-O9-01) D755C	Protocol: A	QC Program: STANDARD TEST SET		

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Page 1

QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/06/00
Time: 11:25:09
User Id.: SMITHJE

CLIENT: 127642 BECHTEL HANFORD, INC.
PROJECT MANAGER: MARTI WARD
PROJECT #: D&D
REPORT TO: Bechtel Hanford, Inc.
P.O. NUMBER: MRC-SBB-A-19981
SITE: B00-013
AMOUNT REC'D: 60MLG
STORAGE LOC: T8F
LOT COMMENTS: Hanford Summary and FEAD EDD required
MATRIX: SOLID
SAMPLE ID: B0XB62
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33811
LAB ID: F-0A060175-003
WORK ORDER: D755D
RECEIVING DATE: 1/05/00
SAMPLING DATE: 1/05/00
ANALYTICAL DUE DATE: 1/24/00N
REPORT DUE DATE: 1/26/00
PRIORITY: 19
SAMPLING TIME: 9:00
RECEIVING TIME: 11:15
SDG# : W03005

Beginning Depth: .00 Ending Depth: .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace) METALS, TOTAL - Soils MT6010_S PB (A-46-QM-01) D755D Protocol: A QC Program: STANDARD TEST SET	06	1/06/00	0/00/00	7/03/00
Mercury (7471A, Cold Vapor) - Solids METALS, TOTAL (Method Exclusive) - Solids M7471_S HG (A-70-O9-01) D755D Protocol: A QC Program: STANDARD TEST SET	06	1/06/00	0/00/00	2/02/00

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Page 1

QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/06/00
Time: 11:25:09
User Id.: SMITHJE

CLIENT: 127642 BECHTEL HANFORD, INC.

PROJECT MANAGER: MARTI WARD

PROJECT #: D&D

REPORT TO: Bechtel Hanford, Inc.

P.O. NUMBER: MRC-SBB-A-19981

SITE: B00-013

AMOUNT REC'D: 60MLG

STORAGE LOC: T8F

LOT COMMENTS: Hanford Summary and FEAD EDD required

MATRIX: SOLID

SAMPLE ID: B0XB63

QC PACKAGE: Special Report - see checklist

SAMPLE COMMENTS:

QUOTE/SAR #: 33811

LAB ID: F-0A060175-004

WORK ORDER: D755H

RECEIVING DATE: 1/05/00

SAMPLING DATE: 1/05/00

ANALYTICAL DUE DATE: 1/24/00N

REPORT DUE DATE: 1/26/00

PRIORITY: 19

SAMPLING TIME: 9:11

RECEIVING TIME: 11:15

SDG# : W03005

Beginning Depth: .00 Ending Depth: .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace) 06		1/06/00	0/00/00	7/03/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01) D755H	Protocol: A	QC Program: STANDARD TEST SET		
Mercury (7471A, Cold Vapor) - Solids 06		1/06/00	0/00/00	2/02/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-O9-01) D755H	Protocol: A	QC Program: STANDARD TEST SET		

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Page 1

QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/06/00
Time: 11:25:09
User Id.: SMITHJE

CLIENT: 127642 BECHTEL HANFORD, INC.

PROJECT MANAGER: MARTI WARD

PROJECT #: D&D

REPORT TO: Bechtel Hanford, Inc.

P.O. NUMBER: MRC-SBB-A-19981

SITE: B00-013

AMOUNT REC'D: 60MLG

STORAGE LOC: T8F

LOT COMMENTS: Hanford Summary and FEAD EDD required

MATRIX: SOLID

SAMPLE ID: B0XB64

QC PACKAGE: Special Report - see checklist

SAMPLE COMMENTS:

QUOTE/SAR #: 33811

LAB ID: F-0A060175-005

WORK ORDER: D755L

RECEIVING DATE: 1/05/00

SAMPLING DATE: 1/05/00

ANALYTICAL DUE DATE: 1/24/00N

REPORT DUE DATE: 1/26/00

PRIORITY: 19

SAMPLING TIME: 9:22

RECEIVING TIME: 11:15

SDG# : W03005

Beginning Depth: .00 Ending Depth: .00

***** ANALYSIS *****

	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace) 06		1/06/00	0/00/00	7/03/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01) D755L	Protocol: A	QC Program: STANDARD TEST SET		
Mercury (7471A, Cold Vapor) - Solids 06		1/06/00	0/00/00	2/02/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-O9-01) D755L	Protocol: A	QC Program: STANDARD TEST SET		

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PSL20300
Page 1

QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/06/00
Time: 11:25:09
User Id.: SMITHJE

CLIENT: 127642 BECHTEL HANFORD, INC.

PROJECT MANAGER: MARTI WARD

PROJECT #: D&D

REPORT TO: Bechtel Hanford, Inc.

P.O. NUMBER: MRC-SBB-A-19981

SITE: B00-013

AMOUNT REC'D: 60MLG

STORAGE LOC: T8F

LOT COMMENTS: Hanford Summary and FEAD EDD required

MATRIX: SOLID

SAMPLE ID: B0XB65

QC PACKAGE: Special Report - see checklist

SAMPLE COMMENTS:

QUOTE/SAR #: 33811

LAB ID: F-0A060175-006

WORK ORDER: D755W

RECEIVING DATE: 1/05/00

SAMPLING DATE: 1/05/00

ANALYTICAL DUE DATE: 1/24/00N

REPORT DUE DATE: 1/26/00

PRIORITY: 19

SAMPLING TIME: 9:37

RECEIVING TIME: 11:15

SDG# : W03005

Beginning Depth: .00 Ending Depth: .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace) 06		1/06/00	0/00/00	7/03/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01) D755W	Protocol: A	QC Program: STANDARD TEST SET		
Mercury (7471A, Cold Vapor) - Solids 06		1/06/00	0/00/00	2/02/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-09-01) D755W	Protocol: A	QC Program: STANDARD TEST SET		

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PSL20300
Page 1

QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/06/00
Time: 11:25:09
User Id.: SMITHJE

CLIENT: 127642 BECHTEL HANFORD, INC.
PROJECT MANAGER: MARTI WARD
PROJECT #: D&D
REPORT TO: Bechtel Hanford, Inc.
P.O. NUMBER: MRC-SBB-A-19981
SITE: B00-013
AMOUNT REC'D: 60MLG
STORAGE LOC: T8F
LOT COMMENTS: Hanford Summary and FEAD EDD required
MATRIX: SOLID
SAMPLE ID: B0XB66
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33811
LAB ID: F-0A060175-007
WORK ORDER: D7560
RECEIVING DATE: 1/05/00
SAMPLING DATE: 1/05/00
ANALYTICAL DUE DATE: 1/24/00N
REPORT DUE DATE: 1/26/00
PRIORITY: 19
SAMPLING TIME: 9:47
RECEIVING TIME: 11:15
SDG# : W03005

Beginning Depth: .00 Ending Depth: .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace) METALS, TOTAL - Soils MT6010_S PB (A-46-QM-01) D7560 Protocol: A QC Program: STANDARD TEST SET	06	1/06/00	0/00/00	7/03/00
Mercury (7471A, Cold Vapor) - Solids METALS, TOTAL (Method Exclusive) - Solids M7471_S HG (A-70-O9-01) D7560 Protocol: A QC Program: STANDARD TEST SET	06	1/06/00	0/00/00	2/02/00

000030

PSL20300
Page 1

QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/06/00
Time: 11:25:09
User Id.: SMITHJE

CLIENT: 127642 BECHTEL HANFORD, INC.
PROJECT MANAGER: MARTI WARD
PROJECT #: D&D
REPORT TO: Bechtel Hanford, Inc.
P.O. NUMBER: MRC-SBB-A-19981
SITE: B00-013
AMOUNT REC'D: 60MLG
STORAGE LOC: T8F
LOT COMMENTS: Hanford Summary and FEAD EDD required
MATRIX: SOLID
SAMPLE ID: BOXBH5
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33811
LAB ID: F-0A060175-008
WORK ORDER: D7563
RECEIVING DATE: 1/05/00
SAMPLING DATE: 1/03/00
ANALYTICAL DUE DATE: 1/24/00N
REPORT DUE DATE: 1/26/00
PRIORITY: 19
SAMPLING TIME: 12:30
RECEIVING TIME: 11:15
SDG# : W03005

Beginning Depth: .00 Ending Depth: .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace) 06 METALS, TOTAL - Soils MT6010_S PB (A-46-QM-01) D7563 Protocol: A QC Program: STANDARD TEST SET		1/06/00	0/00/00	7/01/00
Mercury (7471A, Cold Vapor) - Solids 06 METALS, TOTAL (Method Exclusive) - Solids M7471_S HG (A-70-O9-01) D7563 Protocol: A QC Program: STANDARD TEST SET		1/06/00	0/00/00	1/31/00

000031

PSL20300
Page 1

QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/06/00
Time: 11:25:09
User Id.: SMITHJE

CLIENT: 127642 BECHTEL HANFORD, INC.

PROJECT MANAGER: MARTI WARD

PROJECT #: D&D

REPORT TO: Bechtel Hanford, Inc.

P.O. NUMBER: MRC-SBB-A-19981

SITE: B00-013

AMOUNT REC'D: 60MLG

STORAGE LOC: T8F

LOT COMMENTS: Hanford Summary and FEAD EDD required

MATRIX: SOLID

SAMPLE ID: B0XBH6

QC PACKAGE: Special Report - see checklist

SAMPLE COMMENTS:

QUOTE/SAR #: 33811

LAB ID: F-0A060175-009

WORK ORDER: D7565

RECEIVING DATE: 1/05/00

SAMPLING DATE: 1/03/00

ANALYTICAL DUE DATE: 1/24/00N

REPORT DUE DATE: 1/26/00

PRIORITY: 19

SAMPLING TIME: 12:41

RECEIVING TIME: 11:15

SDG# : W03005

Beginning Depth: .00 Ending Depth: .00

***** ANALYSIS *****

	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace)	06	1/06/00	0/00/00	7/01/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01) D7565	Protocol: A	QC Program:	STANDARD TEST SET	
Mercury (7471A, Cold Vapor) - Solids	06	1/06/00	0/00/00	1/31/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-O9-01) D7565	Protocol: A	QC Program:	STANDARD TEST SET	

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PSL20300
Page 1

QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/06/00
Time: 11:25:09
User Id.: SMITHJE

CLIENT: 127642 BECHTEL HANFORD, INC.
PROJECT MANAGER: MARTI WARD
PROJECT #: D&D
REPORT TO: Bechtel Hanford, Inc.
P.O. NUMBER: MRC-SBB-A-19981
SITE: B00-013
AMOUNT REC'D: 60MLG
STORAGE LOC: T8F
LOT COMMENTS: Hanford Summary and FEAD EDD required
MATRIX: SOLID
SAMPLE ID: B0XBH7
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33811
LAB ID: F-0A060175-010
WORK ORDER: D7567
RECEIVING DATE: 1/05/00
SAMPLING DATE: 1/03/00
ANALYTICAL DUE DATE: 1/24/00N
REPORT DUE DATE: 1/26/00
PRIORITY: 19
SAMPLING TIME: 12:53
RECEIVING TIME: 11:15
SDG# : W03005

Beginning Depth: .00 Ending Depth: .00

***** ANALYSIS *****	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
Inductively Coupled Plasma (6010B Trace) 06		1/06/00	0/00/00	7/01/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01) D7567	Protocol: A	QC Program: STANDARD TEST SET		
Mercury (7471A, Cold Vapor) - Solids 06		1/06/00	0/00/00	1/31/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-O9-01) D7567	Protocol: A	QC Program: STANDARD TEST SET		

000033

PSL20300
Page 1

QUANTERRA INCORPORATED
CLIENT ANALYSIS SUMMARY
Quanterra - St. Louis

Run Date: 1/06/00
Time: 11:25:09
User Id.: SMITHJE

CLIENT: 127642 BECHTEL HANFORD, INC.
PROJECT MANAGER: MARTI WARD
PROJECT #: D&D
REPORT TO: Bechtel Hanford, Inc.
P.O. NUMBER: MRC-SBB-A-19981
SITE: B00-013
AMOUNT REC'D: 60MLG
STORAGE LOC: T8F
LOT COMMENTS: Hanford Summary and FEAD EDD required
MATRIX: SOLID
SAMPLE ID: BOXBH8
QC PACKAGE: Special Report - see checklist
SAMPLE COMMENTS:

QUOTE/SAR #: 33811
LAB ID: F-0A060175-011
WORK ORDER: D756A
RECEIVING DATE: 1/05/00
SAMPLING DATE: 1/03/00
ANALYTICAL DUE DATE: 1/24/00N
REPORT DUE DATE: 1/26/00
PRIORITY: 19
SAMPLING TIME: 12:53
RECEIVING TIME: 11:15
SDG# : W03005

Beginning Depth: .00 Ending Depth: .00

	WRK LOC	REQUEST DATE	EXTRACTION EXP DATE	ANALYSIS EXP DATE
***** ANALYSIS *****				
Inductively Coupled Plasma (6010B Trace)	06	1/06/00	0/00/00	7/01/00
METALS, TOTAL - Soils				
MT6010_S PB				
(A-46-QM-01)	D756A	Protocol: A	QC Program: STANDARD TEST SET	
Mercury (7471A, Cold Vapor) - Solids	06	1/06/00	0/00/00	1/31/00
METALS, TOTAL (Method Exclusive) - Solids				
M7471_S HG				
(A-70-O9-01)	D756A	Protocol: A	QC Program: STANDARD TEST SET	

000034

Y cc: Bill Tierney

ERC Radiological Counting Facility Analysis Report

RCF Number RCF6973

Sample Date & Time 1/3/00 1230

Project ID: 105-F

SAF Number: B00-013

Date Analyzed 1/4/00 3:22:22

Sample ID: B0XBF9

Gamma Energy Analysis

Nuclide	Activity (pCi/g)	Error (pCi/g)	MDC (pCi/g)
K-40	< 1.2E+02		1.2E+02
Co-60	< 2.0E+01		2.0E+01
Cs-137	< 2.2E+01		2.2E+01
Eu-152	< 5.7E+01		5.7E+01
Eu-154	< 4.3E+01		4.3E+01
Eu-155	< 8.6E+01		8.6E+01
Th-232D	< 5.5E+01		5.5E+01
Th-234	< 2.6E+02		2.6E+02
U-235	< 1.7E+02		1.7E+02
U-238D	< 2.6E+01		2.6E+01
U-238	< 3.3E+03		3.3E+03
Am-241	< 4.6E+01		4.6E+01

BoxBH5
BoxBH6
BoxBH7
BoxBH8

results
for samples 008 → 011
FOA060175

Total GEA (pCi/g)

+-

	Activity (pCi/g)	Error (pCi/g)
Gross Alpha**	7.8E-01	+/- 6.5E-01
Gross Beta	1.1E+01	+/- 1.3E+00

Alpha MDC (pCi/g)

4.5E-01

Beta MDC (pCi/g)

6.2E+00

Definitions:

All errors reported at 2 standard deviations.

N/R = no result or analysis not requested. <MDC = Less than detection limit.

All GEA results reported as "<" list the Minimum Detectable Concentration (MDC) value for that radionuclide.

Rounding error may result in the reported total GEA activity differing from the sum of the > MDC GEA values in the second significant digit.

For soils and natural samples, the following applies:

The analysis of U-238 is based on the activity of Pa-234m.

The analysis of Np-237 is based on the activity of Pa-233.

U-238dau is the activity of Pb-214 and Bi-214, short lived daughter products of U-238. Equilibrium between parent and daughter products probably does not exist in disturbed materials.

Th-232dau is the activity of Ac-228, Pb-212, and Tl-208, short lived daughter products of Th-232. Equilibrium between parent and daughter products may not exist in disturbed materials.

Other samples, not containing natural materials, may have inapplicable results for the Th, U, transuranics and daughter products. The results must then be balanced for the gross alpha analysis.

**The gross alpha results are not corrected for mass absorption

No peaks for this radionuclide were visible above background in the spectrum. The result was reported as less than MDC.

Analyst



1/4/00

Report To

Fax

ERC Radiological Counting Facility Analysis Report

RCF Number RCF6959 *1/7* *cc: Bill Jerry* Sample Date & Time 12/29/99 0952
 Project ID: 105-F SAF Number: B00-013 Date Analyzed 12/30/99 9:08:
 Sample ID: B0XBF6

Gamma Energy Analysis

Nuclide	Activity (pCi/g)	Error (pCi/g)	MDC (pCi/g)
K-40	< 1.7E+02		1.7E+02
Co-60	< 1.8E+01		1.8E+01
Cs-137	< 1.8E+01		1.8E+01
Eu-152	< 4.7E+01		4.7E+01
Eu-154	< 4.8E+01		4.8E+01
Eu-155	< 8.0E+01		8.0E+01
Th-232D	< 4.7E+01		4.7E+01
U-235	< 1.6E+02		1.6E+02
U-238	< 3.3E+03		3.3E+03
U-238D	9.4E+01 +/-	4.3E+01	4.9E+01
Am-241	< 4.7E+01		4.7E+01

BOX 60
↓ 61
↓ 62
BOX 65
BOX 66
↓ 63
↓ 64

Results for samples 001 → 007
FOA06175

Total GEA (pCi/g) 9.4E+01 +/- 4.3E+01

	Activity (pCi/g)	Error (pCi/g)
Gross Alpha**	7.6E-01 +/-	6.0E-01
Gross Beta	1.0E+01 +/-	1.2E+00

Alpha MDC (pCi/g)
4.3E-01
Beta MDC (pCi/g)
5.6E+00

Definitions:

All errors reported at 2 standard deviations.

N/R = no result or analysis not requested. <MDC = Less than detection limit.

All GEA results reported as "<" list the Minimum Detectable Concentration (MDC) value for that radionuclide.

Rounding error may result in the reported total GEA activity differing from the sum of the > MDC GEA values in the second significant digit.

For soils and natural samples, the following applies:

The analysis of U-238 is based on the activity of Pa-234m.

The analysis of Np-237 is based on the activity of Pa-233.

U-238dau is the activity of Pb-214 and Bi-214, short lived daughter products of U-238. Equilibrium between parent and daughter products probably does not exist in disturbed materials.

Th-232dau is the activity of Ac-228, Pb-212, and Tl-208, short lived daughter products of Th-232. Equilibrium between parent and daughter products may not exist in disturbed materials.

Other samples, not containing natural materials, may have inapplicable results for the Th, U, transuranics and daughter products. The results must then be balanced for the gross alpha analysis.

**The gross alpha results are not corrected for mass absorption

No peaks for this radionuclide were visible above background in the spectrum. The result was reported as less than MDC.

Analyst

[Signature]
 T. J. Smith

12/30/99

Report To
 D. St John

Fax
 372-9487

W-21038

CW 020515

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						B00-013-103		Page 1 of 1		
Collector Fahlberg		Company Contact J Adler		Telephone No. 373-4316		Project Coordinator TRENT, SJ		Price Code 9L		Data Turnaround 21 Days		
Project Designation 105-F/DR Phase III Below-grade Areas Sampling and Analy		Sampling Location 105 F Solids Feed		SAF No. B00-013		Air Quality <input type="checkbox"/>						
Ice Chest No. E12L-96-065		Field Logbook No. EL 1424		COA R105R2280C		Method of Shipment						
Shipped To Quanterra Incorporated		Offsite Property No.		100% fuel		Bill of Lading/Air Bill No.						
POSSIBLE SAMPLE HAZARDS/REMARKS				Preservation		Cool 4C	None	None				
				Type of Container		aG	aG	aG				
				No. of Container(s)		1	1	1				
				Volume		60mL	60mL	120mL				
Special Handling and/or Storage												
SDA W 03005 SAMPLE ANALYSIS Due 1-28 JOA050173				7196_CR6: Hexavalent Chromium (I)		ICP Metals - 6010A (Supertrace) (Lead); Mercury - 7471 - (CV)		See item (1) in Special Instructions.				
Sample No.	Matrix *	Sample Date	Sample Time									
BOXB60	Other Solid	1-5-00	0841	X	X	X	D73	RO				
BoxB61	OTHER SOLID	1-5-00	0848	X	X	X	D73	RE				
BoxB62	OTHER SOLID	1-5-00	0900	X	X	X	D73	RR				
BoxB63	OTHER SOLID	1-5-00	0911	X	X	X	D73	T4				
BoxB64	OTHER SOLID	1-5-00	0922	X	X	X	D73	T5				
CHAIN OF POSSESSION				Sign/Print Names		SPECIAL INSTRUCTIONS						
Relinquished By		Date/Time		Received By		Date/Time		(1) Gamma Spectroscopy (Cobalt-60); Gamma Spec - Add-on (Barium-133); Isotopic Plutonium; Strontium-89,90 -- Total Sr; Technetium-99; Americium-241; Nickel-63; Carbon-14 TIED TO RAD SURVEY BOXB6				
R. Fahlberg		1-5-00		K. Adtenberg		1-5-00						
K. Adtenberg		1-5-00		K. Adtenberg		1-6-00						
Relinquished By		Date/Time		Received By		Date/Time		Matrix * S=Soil SE=Sediment SO=Solid S=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other				
Relinquished By		Date/Time		Received By		Date/Time						
Relinquished By		Date/Time		Received By		Date/Time						
Relinquished By		Date/Time		Received By		Date/Time						
LABORATORY SECTION		Received By		Title		Date/Time						
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By		Date/Time						

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST					B00-013-108		Page 1 of 1		
Collector Fahlberg		Company Contact J Adler		Telephone No. 373-4316		Project Coordinator TRENT, SJ		Price Code 9L		Data Turnaround 21 Days	
Project Designation 105-F/DR Phase III Below-grade Areas Sampling and Analy		Sampling Location 105 F Solids Feed			SAF No. B00-013		Air Quality <input type="checkbox"/>				
Ice Chest No. ERL-96-065		Field Logbook No. EL 1424		COA R105F2280C		Method of Shipment					
Shipped To Quanterra Incorporated		Offsite Property No.			10072/20		Bill of Lading/Air Bill No.				
POSSIBLE SAMPLE HAZARDS/REMARKS				Preservation	Cool 4C	None	None				
				Type of Container	aG	aG	aG				
				No. of Container(s)	1	1	1				
				Special Handling and/or Storage	Volume	60mL	60mL	120mL			
SAMPLE ANALYSIS				7196_CR6: Hexavalent Chromium (I)	ICP Metals - 6010A (Supertrace) (Lead); Mercury - 7471 - (CV)	See item (1) in Special Instructions.					
Sample No.	Matrix *	Sample Date	Sample Time								
BOXB65	Other Solid	1-5-00	0937	X	X	X	D73 TB				
Box B66	OTHER Solid	1-5-00	0947	X	X	X	D73 TC				
CHAIN OF POSSESSION				Sign/Print Names				SPECIAL INSTRUCTIONS			
Relinquished By		Date/Time	Received By		Date/Time	(1) Gamma Spectroscopy (Cobalt-60); Gamma Spec - Add-on (Barium-133); Isotopic Plutonium; Strontium-89,90 -- Total Sr; Technetium-99; Americium-241; Nickel-63; Carbon-14 TIED TO RAD SCREEN Box BFC			Matrix * S=Soil SE=Sediment SO=Solid S=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other		
R. Fahlberg		1-5-00	K. Achtenberg		1-5-00						
K. Achtenberg		1-5-00	S. Achtenberg		1-6-00						
Relinquished By		Date/Time	Received By		Date/Time						
Relinquished By		Date/Time	Received By		Date/Time						
Relinquished By		Date/Time	Received By		Date/Time						
Relinquished By		Date/Time	Received By		Date/Time						
LABORATORY SECTION		Received By		Title				Date/Time			
FINAL SAMPLE DISPOSITION		Disposal Method		Disposed By				Date/Time			

Bechtel Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				B00-013-146		Page 1 of 1	
Collector Fahlberg		Company Contact J Adler		Telephone No. 373-4316		Project Coordinator TRENT, SJ		Price Code 9L Data Turnaround 21 Days	
Project Designation 105-F/DR Phase III Below-grade Areas Sampling and Analy		Sampling Location 105F		SAF No. B00-013		Air Quality <input type="checkbox"/>			
Ice Chest No. ERC94010		Field Logbook No. EL 1424		COA R105F2280C		Method of Shipment Gov. vehicle			
Shipped To Quanterra Incorporated		Offsite Property No. WJA-100%		Bill of Lading/Air Bill No. WJA					
POSSIBLE SAMPLE HAZARDS/REMARKS				Preservation		None			
				Type of Container		aG			
				No. of Container(s)		1			
				Volume		60mL		120mL	
Special Handling and/or Storage									
SAMPLE ANALYSIS				ICP Metals - 6010A (Supertrace) (Lead); Mercury - 7471 - (CV)		See item (1) in Special Instructions.			
Sample No.	Matrix *	Sample Date	Sample Time						
BOXBH5 (8)	Other Solid	1-3-00	12:30	X	X	D73	TD		BoxBF9
BoxBHG	OTHER SOLID	1-3-00	12:48	X	X	D73	TJ		BoxBF9
BoxBH7	OTHER SOLID	1-3-00	12:53	X	X	D73	TL		BoxBF9
BoxBHE	OTHER SOLID	1-3-00	12:53	X	X	D73	TM		BoxBF9
CHAIN OF POSSESSION				Sign/Print Names				SPECIAL INSTRUCTIONS	
Relinquished By R. Fahlberg		Date/Time 1-3-00 1:48		Received By R. Fahlberg		Date/Time 1-3-00 1:50		(1) Gamma Spectroscopy (Cobalt-60); Gamma Spec - Add-on (Barium-133); Isotopic Plutonium; Strontium-89,90 - Total Sr; Technetium-99; Americium-241; Nickel-63; Carbon-14	
Relinquished By R. Thoren		Date/Time 1-5-00 09:00		Received By R. Thoren		Date/Time 1-5-00 09:00			
Relinquished By R. Thoren		Date/Time 1-5-00 11:00		Received By R. Thoren		Date/Time 1-5-00 11:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00		Matrix *	
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00		S=Soil SE=Sediment SO=Solid S=Sludge W=Water O=Oil A=Air DS=Drum Solids DL=Drum Liquids T=Tissue WI=Wipe L=Liquid V=Vegetation X=Other	
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
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Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
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Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:00		Received By R. Thoren		Date/Time 1-5-00 1:00			
Relinquished By R. Thoren		Date/Time 1-5-00 1:							

Figure 1

SAMPLE CHECK-IN LIST

Date/Time Received: 01-05-00 1115 SG#: W03005
Work Order Number: JOA050173 SAF #: B00-013
Shipping Container ID: ER96-065 Chain of Custody #: B00-013-103+108

1. Custody Seals on shipping container intact? Yes [☒] No [☐]
2. Custody Seals dated and signed? Yes [☒] No [☐]
3. Chain-of-Custody record present? Yes [☐] No [☒] 4°C
4. Cooler temperature _____
5. Vermiculite/packing materials is _____ Wet [☐] Dry [☒] Wet
6. Number of samples in shipping container: _____ 21
7. Sample holding times exceeded? Yes [☐] No [☐]

8. Samples have:
☒ tape _____ hazard labels
☒ custody seals _____ appropriate sample labels

9. Samples are:
☒ in good condition _____ leaking
_____ broken _____ have air bubbles

10. Where any anomalies identified in sample receipt? Yes [☐] No [☒]
11. Description of anomalies (include sample numbers): _____

Sample Custodian/Laboratory: K. Deffenberg Date: 01-05-00
Telephoned To: _____ On _____ By _____

000040

SAMPLE CHECK-IN LIST

000041

020573

Condition Upon Receipt Variance Report
St. Louis Laboratory

Login No.: FOA060175

W03005

Client: Richland

Date: 1-6-00 Time: 830

Project No: _____

Initiated by: [Signature]

Shipper/No: Aurbois 4012585070

RFA/COC Numbers: B00-013-103, 108 & 146

Condition/Variance (Check all that apply):

1. <input type="checkbox"/> Sample received broken/leaking.	8. <input type="checkbox"/> Sample ID on container does not match sample ID on paperwork. Explain: _____
2. <input type="checkbox"/> Sample received without proper preservative. <input type="checkbox"/> Cooler temperature not within 4-C \pm 2-C Record temperature: _____ <input type="checkbox"/> pH _____ <input type="checkbox"/> other: _____	9. <input type="checkbox"/> All coolers on airbill not received with shipment.
3. <input type="checkbox"/> Sample received in improper container.	10. <input type="checkbox"/> Other (explain below): _____
4. <input type="checkbox"/> Sample received without proper paperwork. Explain: _____	
5. <input type="checkbox"/> Paperwork received without sample.	
6. <input type="checkbox"/> No sample ID on sample container.	
7. <input type="checkbox"/> Custody tape disturbed/broken/missing.	

☒ No variances were noted during sample receipt.

Cooler Temperature Upon Receipt: 2°

Temperature Variance Does Not Affect the Following Analyses: _____

Notes: _____

Corrective Action:

- ☐ Client's Name: _____ Informed verbally on: _____ By: _____
- ☐ Client's Name: _____ Informed in writing on: _____ By: _____
- ☐ Sample(s) processed "as is".
- ☐ Comments: _____ If released, notify: _____
- ☐ Sample(s) on hold until: _____

Sample Control Supervisor Review: (or designate) [Signature] Date: 1-6-00

Project Management Review: _____ Date: _____

SIGNED ORIGINAL MUST BE RETAINED IN THE PROJECT FILE

000042

BECHTEL HANFORD, INC.

Client Sample ID: BOXB67

TOTAL Metals

Lot-Sample #...: FOA070135-001

Matrix.....: SOLID

Date Sampled...: 01/06/00

Date Received...: 01/06/00

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 0027167						
Lead	11.5	0.30	mg/kg	SW846 6010B	01/27/00	D76G1101
		Dilution Factor: 1		MDL.....: 0.15		
Prep Batch #...: 0036128						
Mercury	0.050	0.033	mg/kg	SW846 7471A	02/04/00	D76G1204
		Dilution Factor: 1		MDL.....: 0.0070		

000043

BECHTEL HANFORD, INC.

Client Sample ID: B0XB68

TOTAL Metals

Lot-Sample #...: F0A070135-002

Matrix.....: SOLID

Date Sampled...: 01/06/00

Date Received...: 01/06/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0027167						
Lead	11.7	0.30	mg/kg	SW846 6010B	01/27/00	D76GJ101
		Dilution Factor: 1		MDL.....: 0.15		
Prep Batch #...: 0036128						
Mercury	0.11	0.033	mg/kg	SW846 7471A	02/04/00	D76GJ202
		Dilution Factor: 1		MDL.....: 0.0070		

000044

BECHTEL HANFORD, INC.

Client Sample ID: BOXB69

TOTAL Metals

Lot-Sample #...: FOA070135-003

Matrix.....: SOLID

Date Sampled...: 01/06/00

Date Received...: 01/06/00

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING</u> <u>LIMIT</u>	<u>UNITS</u>	<u>METHOD</u>	<u>PREPARATION-</u> <u>ANALYSIS DATE</u>	<u>WORK</u> <u>ORDER #</u>
Prep Batch #...: 0027167						
Lead	8.5	0.30	mg/kg	SW846 6010B	01/27/00	D76GL101
		Dilution Factor: 1		MDL.....: 0.15		
Prep Batch #...: 0036128						
Mercury	0.041	0.033	mg/kg	SW846 7471A	02/04/00	D76GL202
		Dilution Factor: 1		MDL.....: 0.0070		

000045

BECHTEL HANFORD, INC.

Client Sample ID: B0XB70

TOTAL Metals

Lot-Sample #...: F0A070135-004

Matrix.....: SOLID

Date Sampled...: 01/06/00

Date Received...: 01/06/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0027167						
Lead	9.2	0.30	mg/kg	SW846 6010B	01/27/00	D76GP101
		Dilution Factor: 1		MDL.....: 0.15		
Prep Batch #...: 0036128						
Mercury	0.13	0.033	mg/kg	SW846 7471A	02/04/00	D76GP202
		Dilution Factor: 1		MDL.....: 0.0070		

000046

BECHTEL HANFORD, INC.

Client Sample ID: B0XB71

TOTAL Metals

Lot-Sample #....: F0A070135-005

Matrix.....: SOLID

Date Sampled....: 01/06/00

Date Received...: 01/06/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
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Prep Batch #....: 0027167

Lead	6.6	0.30	mg/kg	SW846 6010B	01/27/00	D76GQ101
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Dilution Factor: 1

MDL.....: 0.15

Prep Batch #....: 0036128

Mercury	0.079	0.033	mg/kg	SW846 7471A	02/04/00	D76GQ202
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Dilution Factor: 1

MDL.....: 0.0070

000047

BECHTEL HANFORD, INC.

Client Sample ID: BOXB72

TOTAL Metals

Lot-Sample #....: FOA070135-006

Matrix.....: SOLID

Date Sampled...: 01/06/00

Date Received...: 01/06/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #....: 0027167						
Lead	11.5	0.30	mg/kg	SW846 6010B	01/27/00	D76GR101
		Dilution Factor: 1		MDL.....: 0.15		
Prep Batch #....: 0036128						
Mercury	0.11	0.033	mg/kg	SW846 7471A	02/04/00	D76GR202
		Dilution Factor: 1		MDL.....: 0.0070		

000048

BECHTEL HANFORD, INC.

Client Sample ID: B0XB73

TOTAL Metals

Lot-Sample #...: FOA070135-007

Matrix.....: SOLID

Date Sampled...: 01/06/00

Date Received...: 01/06/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0027167						
Lead	7.6	0.30	mg/kg	SW846 6010B	01/27/00	D76GT101
		Dilution Factor: 1		MDL.....: 0.15		
Prep Batch #...: 0036128						
Mercury	0.54	0.033	mg/kg	SW846 7471A	02/04/00	D76GT202
		Dilution Factor: 1		MDL.....: 0.0070		

000049

METHOD BLANK REPORT

TOTAL Metals

Client Lot #...: F0A070135

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: F0A270000-167 Prep Batch #...: 0027167						
Lead	ND	0.30	mg/kg	SW846 6010B	01/27/00	D7WKW101
Dilution Factor: 1						

MB Lot-Sample #: F0B050000-128 Prep Batch #...: 0036128						
Mercury	0.015 B	0.033	mg/kg	SW846 7471A	02/04/00	D88W8101
Dilution Factor: 1						

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

000050

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Lot-Sample #...: F0A070135

Matrix.....: SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	PREP- BATCH #
Mercury	115	(80 - 120)			SW846 7471A	02/04/00	0036128
	118	(80 - 120)	2.0	(0-20)	SW846 7471A	02/04/00	0036128

Dilution Factor: 1

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

000051

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: F0A070135

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
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LCS Lot-Sample#: F0A270000-167 Prep Batch #...: 0027167

Lead	104	(76 - 124)	SW846 6010B	01/27/00	D7WKW102
		Dilution Factor: 1			

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

000052

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: FOA070135

Matrix.....: SOLID

Date Sampled...: 01/06/00

Date Received...: 01/06/00

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
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MS Lot-Sample #: FOA070135-001 Prep Batch #...: 0027167

Lead	89	(75 - 125)		SW846 6010B	01/27/00	D76G1102
	83	(75 - 125)	5.2 (0-20)	SW846 6010B	01/27/00	D76G1103

Dilution Factor: 1

MS Lot-Sample #: FOA070135-001 Prep Batch #...: 0036128

Mercury	103	(75 - 125)		SW846 7471A	02/04/00	D76G1107
	105	(75 - 125)	1.5 (0-20)	SW846 7471A	02/04/00	D76G1108

Dilution Factor: 1

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

000053

BECHTEL HANFORD, INC.

Client Sample ID: B0XB60

TOTAL Metals

Lot-Sample #...: F0A060175-001

Matrix.....: SOLID

Date Sampled...: 01/05/00

Date Received...: 01/05/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0027162						
Lead	6.2	0.30	mg/kg	SW846 6010B	01/27/00	D7557101
		Dilution Factor: 1		MDL.....: 0.15		
Prep Batch #...: 0036128						
Mercury	0.084	0.033	mg/kg	SW846 7471A	02/04/00	D7557204
		Dilution Factor: 1		MDL.....: 0.0070		

000054

BECHTEL HANFORD, INC.

Client Sample ID: B0XB61

TOTAL Metals

Lot-Sample #...: F0A060175-002

Matrix.....: SOLID

Date Sampled...: 01/05/00

Date Received...: 01/05/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
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Prep Batch #...: 0027162

Lead	6.4	0.30	mg/kg	SW846 6010B	01/27/00	D755C101
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Dilution Factor: 1

MDL.....: 0.15

Prep Batch #...: 0036128

Mercury	0.078	0.033	mg/kg	SW846 7471A	02/04/00	D755C202
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Dilution Factor: 1

MDL.....: 0.0070

000055

BECHTEL HANFORD, INC.

Client Sample ID: B0XB62

TOTAL Metals

Lot-Sample #...: F0A060175-003

Matrix.....: SOLID

Date Sampled...: 01/05/00

Date Received...: 01/05/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0027162						
Lead	8.8	0.30	mg/kg	SW846 6010B	01/27/00	D755D101
		Dilution Factor: 1				
Prep Batch #...: 0036128						
Mercury	0.073	0.033	mg/kg	SW846 7471A	02/04/00	D755D202
		Dilution Factor: 1				

000056

BECHTEL HANFORD, INC.

Client Sample ID: BOXB63

TOTAL Metals

Lot-Sample #...: FOA060175-004

Matrix.....: SOLID

Date Sampled...: 01/05/00

Date Received...: 01/05/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0027162						
Lead	12.0	0.30	mg/kg	SW846 6010B	01/27/00	D755H101
		Dilution Factor: 1		MDL.....: 0.15		
Prep Batch #...: 0036128						
Mercury	0.13	0.033	mg/kg	SW846 7471A	02/04/00	D755H202
		Dilution Factor: 1		MDL.....: 0.0070		

000057

BECHTEL HANFORD, INC.

Client Sample ID: BOXB64

TOTAL Metals

Lot-Sample #...: FOA060175-005

Matrix.....: SOLID

Date Sampled...: 01/05/00

Date Received...: 01/05/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0027162						
Lead	2.8	0.30	mg/kg	SW846 6010B	01/27/00	D755L101
		Dilution Factor: 1		MDL.....: 0.15		
Prep Batch #...: 0036128						
Mercury	0.26	0.033	mg/kg	SW846 7471A	02/04/00	D755L202
		Dilution Factor: 1		MDL.....: 0.0070		

000058

BECHTEL HANFORD, INC.

Client Sample ID: B0XB65

TOTAL Metals

Lot-Sample #...: F0A060175-006

Matrix.....: SOLID

Date Sampled...: 01/05/00

Date Received...: 01/05/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0027162						
Lead	11.6	0.30	mg/kg	SW846 6010B	01/27/00	D755W101
		Dilution Factor: 1		MDL.....: 0.15		
Prep Batch #...: 0036128						
Mercury	0.076	0.033	mg/kg	SW846 7471A	02/04/00	D755W202
		Dilution Factor: 1		MDL.....: 0.0070		

000059

BECHTEL HANFORD, INC.

Client Sample ID: BOXB66

TOTAL Metals

Lot-Sample #...: FOA060175-007

Matrix.....: SOLID

Date Sampled...: 01/05/00

Date Received...: 01/05/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
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Prep Batch #...: 0027162

Lead	5.8	0.30	mg/kg	SW846 6010B	01/27/00	D7560101
		Dilution Factor: 1		MDL.....: 0.15		

Prep Batch #...: 0036128

Mercury	0.38	0.033	mg/kg	SW846 7471A	02/04/00	D7560202
		Dilution Factor: 1		MDL.....: 0.0070		

000060

BECHTEL HANFORD, INC.

Client Sample ID: B0XBH5

TOTAL Metals

Lot-Sample #...: F0A060175-008

Matrix.....: SOLID

Date Sampled...: 01/03/00

Date Received...: 01/05/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0027162						
Lead	27.2	0.30	mg/kg	SW846 6010B	01/27/00	D7563101
		Dilution Factor: 1		MDL.....: 0.15		
Prep Batch #...: 0036128						
Mercury	0.83	0.033	mg/kg	SW846 7471A	02/04/00	D7563202
		Dilution Factor: 1		MDL.....: 0.0070		

000061

BECHTEL HANFORD, INC.

Client Sample ID: B0XBH6

TOTAL Metals

Lot-Sample #...: F0A060175-009

Matrix.....: SOLID

Date Sampled...: 01/03/00

Date Received...: 01/05/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
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Prep Batch #...: 0027162

Lead	36.0	0.30	mg/kg	SW846 6010B	01/27/00	D7565101
		Dilution Factor: 1	MDL.....: 0.15			

Prep Batch #...: 0036128

Mercury	0.38	0.033	mg/kg	SW846 7471A	02/04/00	D7565202
		Dilution Factor: 1	MDL.....: 0.0070			

000062

BECHTEL HANFORD, INC.

Client Sample ID: B0XBH7

TOTAL Metals

Lot-Sample #...: F0A060175-010

Matrix.....: SOLID

Date Sampled...: 01/03/00

Date Received...: 01/05/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0027162						
Lead	9.1	0.30	mg/kg	SW846 6010B	01/27/00	D7567101
		Dilution Factor: 1		MDL.....: 0.15		
Prep Batch #...: 0036128						
Mercury	0.18	0.033	mg/kg	SW846 7471A	02/04/00	D7567202
		Dilution Factor: 1		MDL.....: 0.0070		

000063

BECHTEL HANFORD, INC.

Client Sample ID: BOXBH8

TOTAL Metals

Lot-Sample #...: F0A060175-011

Matrix.....: SOLID

Date Sampled...: 01/03/00

Date Received...: 01/05/00

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
Prep Batch #...: 0027162						
Lead	9.8	0.30	mg/kg	SW846 6010B	01/27/00	D756A101
		Dilution Factor: 1		MDL.....: 0.15		
Prep Batch #...: 0036128						
Mercury	0.31	0.033	mg/kg	SW846 7471A	02/04/00	D756A202
		Dilution Factor: 1		MDL.....: 0.0070		

000064

METHOD BLANK REPORT

TOTAL Metals

Client Lot #....: F0A060175

Matrix.....: SOLID

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
MB Lot-Sample #: F0A270000-162 Prep Batch #....: 0027162						
Lead	ND	0.30	mg/kg	SW846 6010B	01/27/00	D7WKJ101
Dilution Factor: 1						

MB Lot-Sample #: F0B050000-128 Prep Batch #....: 0036128						
Mercury	0.015 B	0.033	mg/kg	SW846 7471A	02/04/00	D88W8101
Dilution Factor: 1						

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

B Estimated result. Result is less than RL.

000065

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Lot-Sample #...: F0A060175

Matrix.....: SOLID

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	PREP- BATCH #
Mercury	115	(80 - 120)			SW846 7471A	02/04/00	0036128
	118	(80 - 120)	2.0	(0-20)	SW846 7471A	02/04/00	0036128

Dilution Factor: 1

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

000066

LABORATORY CONTROL SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: F0A060175

Matrix.....: SOLID

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>	<u>PREPARATION- ANALYSIS DATE</u>	<u>WORK ORDER #</u>
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LCS Lot-Sample#: F0A270000-162 Prep Batch #...: 0027162

Lead	106	(76 - 124)	SW846 6010B	01/27/00	D7WKJ102
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Dilution Factor: 1

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

000067

MATRIX SPIKE SAMPLE EVALUATION REPORT

TOTAL Metals

Client Lot #...: F0A060175

Matrix.....: SOLID

Date Sampled...: 01/05/00

Date Received...: 01/05/00

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD LIMITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
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MS Lot-Sample #: F0A060175-001 Prep Batch #...: 0027162

Lead	82	(75 - 125)		SW846 6010B	01/27/00	D7557102
	83	(75 - 125)	1.3 (0-20)	SW846 6010B	01/27/00	D7557103

Dilution Factor: 1

MS Lot-Sample #: F0A060175-001 Prep Batch #...: 0036128

Mercury	99	(75 - 125)		SW846 7471A	02/04/00	D7557107
	103	(75 - 125)	2.6 (0-20)	SW846 7471A	02/04/00	D7557108

Dilution Factor: 1

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.

000068